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ABSTRACT

If research on personality is to be productive and progressive, it is necessary to make objectives explicit and to link abstractions with common experiences. Six levels of classification outline these objectives. Level 1 involves the characterization and classification of persons. Level 2 studies attributes. Level 3 is concerned with inferred processes. Level 4 studies the processes in construing behavior and in making attributions. Level 5 looks for behaviors common to most people. Level 6 examines behaviors in sequence. Generalizability (external validity) is low for the first three levels and increases for the remaining ones. Research at the earlier levels shows little likelihood of developing into a basic science: the possible degree of agreement between observers is limited. Whether this classification seems adequate or not, each person researching in personality must make explicit his phenomena, methods and goals. (Author)

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Levels of Analysis in Personality Study: Which Can be Generalizable and Scientific?[1]

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Abstract. In studying personality, we are interested in a variety of phenomena and we have several objectives. In the classification proposed here, Level 1 involves the characterization and classification of persons. Level 2 studies attributes. Level 3 is concerned with inferred processes. Level 4 studies the processes in construing behavior and in making attributions. Level 5 looks for behaviors common to most people. Level 6 examines behaviors in sequence. Generalizability (external validity) is low for the first three levels and increases for the remaining ones. Similarly, research at the earlier levels shows little likelihood of developing into a basic science, in large part because the possible degree of agreement between observers is limited there. Whether this classification seems adequate or not, each person researching in the area of personality must make explicit and public their chosen phenomena, methods, and goals.

Personality is a topic that intrigues all of us, laymen and professionals alike. Everyone is fascinated by people--what they are like and what makes them do what they do. But as a discipline, personality psychology is a mess. We still don't know much about the phenomena we seek to understand. We have lots of ideas, mostly created by reflecting on our personal experiences with people, but few established facts. As a group, personality psychologists agree on very little: we do not share consensually accepted concepts, we don't have agreement on standard methods, and we have no unanimity on basic propositions or laws. My evaluation is similar to what Lee Sechrest (1976) wrote in the Annual Review of Psychology four years ago.

As Jim Lamiell wrote in his prospectus for this symposium, perhaps "the psychology of personality has, collectively speaking, lost sight of its overriding scientific objectives, or perhaps . . . those objectives were never clearly articulated in the first place . . ." I am convinced that the latter is

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true. As I have argued elsewhere (Fiske, 1978, Ch. 1), personality psychologists have really been trying to understand their own experiences with other people and with themselves. Personality is not an object for scientific investigation: It is a topic, an area, a domain.

What are our scientific objectives in studying personality? What are the types of impressions, of constructs, and labels that are the objects of our study? Here is a classification. You will want to modify it or even throw it out and substitute your own. I am less concerned with the adequacy of my explicated classification than I am with the absolutely essential need, if research in personality is to be productive and make progress--with the necessity of making our objectives explicit, of stating them in a clear form with concrete referents so that our abstractions are linked to our common experiences, if not to consensual observables.

Proposed levels. In personality, we are interested in a variety of phenomena, in events, actions, processes, in activity and behavior as experienced by us and by others. In my proposed classification, Level 1 involves the characterization of the individual person, the classification of individuals, typically for purposes of different treatments as in clinical and personnel work; in other words, for making decisions about persons. Examples are the forming of a general impression about an applicant for graduate study or for a faculty position (remember the good old days when we had positions to fill?) Such coarse characterizing does not fit into my definition of science; at best, it is empirical engineering.

Level 2 is the study of attributes, as in classical individual differences research. It is aimed either at identifying basic dimensions or at describing the labels that people give each other. Examples are the factor analyses of tests or ratings--so popular a decade or two ago. But the search for the dimensions of personality is futile: researchers have proposed many sets of dimensions, but no set seems compelling to all the rest of us. These attributes are so broad and so poorly linked to consensual observables that they never appear in strong relationships with any other variables.

Level 3 is the study of inferred processes in people, looking for dynamics common to many or most people. Attributing dynamics to patients, friends, and enemies is fun--we enjoy doing it just as everyone else does. The inferential leaps in this approach, however, are too long and too tenuous to enable us to develop systematic knowledge at this level.

Also at this level is the experimental generation of dynamic processes in laboratory subjects by instructions, physical stimuli, or other stressors. Examples include real or threatened shocks. Although the stressors (Murray's alpha press) are unambiguous, the subjective perception of them (the beta press,

the effective determinants) can only be inferred.

Level 4 studies the processes in construing behavior and in making attributions to others, as these processes occur in our subjects or our observers. Although little definitive knowledge has been acquired about what does go on in these people when we ask them to make attributions, there is some hope for this level of analysis insofar as it emphasizes process and not content.

Level 5 looks for behaviors common to most people, especially to people in the same situation adapting to the same stimuli. An example is behavior imitating that of a model provided by the investigator, either in the laboratory or in the New York subway. We have yet to establish the degree to which these complex phenomena form scientifically useful classes, rather than being specific to the particular set of conditions.

Level 6 studies behaviors as they occur sequentially, within the context of other behaviors. Examples can be found in human ethology and in the moment-to-moment sequences occurring in face-to-face interactions. Thus, Duncan (Duncan & Fiske, 1977) has found rules about speaker actions that must precede the occurrence of smooth exchanges of the speaking turn; and he and I have found speaker strategies that, in 90 to 100% of the interactions we have studied, increase the likelihood that the auditor will take the speaking turn (Duncan, Brunner, & Fiske, 1979).

It is not just lack of time that makes that listing of levels less than satisfying. In the original planning for this symposium, I had thought that I could identify more explicitly these several kinds of phenomena. I have found that all I can do is point to areas of research. I can't point to certain events, certain replicable behavior observations and say "There! That is what people are studying at this level." We don't have these common exemplars, of the kind that Thomas Kuhn (1970) identified as one aspect of a scientific paradigm, and we never will have.

For more adequate identification of these levels, we need to make explicit not only the phenomena being studied but also the general method used. We need to spell out the perspective from which the phenomena are studied, the type of person producing the data, and the kind of judgment being made by that person. (To present a complete picture, we should go even furthur and also identify the goals and values of the investigator, along with the kind of knowledge being sought.)

As soon as we look at the perspectives and the types of data-producer, we see that most of the levels are heterogeneous in these respects. Although this systematic classification of levels is of some value, it does not give us unified domains for investigation: Each of the first several levels is itself a collection of discrete subject-matters--the variation within

each of those levels is not much smaller than the variation between them.

Yet it is clear that the several levels are differentiated not only in terms of what each studies but also in the methodologies appropriate for each. In particular, there is the crucial distinction between data on which several observers (data-producers) agree almost exactly and data somewhat specific to the individual's cognitive assimilations and interpretations. Observers can be interchangeable when they are describing brief events (Fiske, 1979) but not when they are making judgments about sequences of behavioral events. The brevity and homogeneity of the behavior associated with each datum are the fundamental dimensions underlying these levels of phenomena studied, or any other classification of our objects for study. Psychology in general, and even personality in particular, will advance only as we shift from using data where micro-units are integrated in some mysterious fashion in the heads of our data-producers to data where the investigator combines discrete units in an explicit and replicable manner.

As I said before, other classifications could be developed. One could be based on the degree of abstraction of the variables used: How many steps between the labeled variables and the immediate experience, consensual or individual? Others could be based on aspects of the behavior sample taken as sufficient to yield an observation, datum, score, rating, or judgment. What is the duration of the behavior sample used? Alternatively, what is the degree of heterogeneity of the several physical behaviors included in the behavior sample, either within one consecutive sample or in an agglomeration of discrete samples? I.e., how varied are the topographies of the behaviors (to use a word that may be anachronistic)? Again, a classification could be based on the communality of meaning, i.e., on the degree of agreement on the meanings of the various words, labels, and concepts used. These alternative bases for classifications would yield orders rather comparable to the one I have offered.

The identification of such levels is also important for another reason: the strongest relationships found in empirical research will be among variables at the same level. (Of course, even these aren't very strong--we are all familiar with the .30 or .35 correlation that is typical of our good positive findings.) I have not done the very lengthy job of scholarship necessary to provide evidence for that assertion about strength of relationships, but it is very highly probable because research at any one level tends to use the same or similar methods, and variables measured by the same method covary in part from shared method variance. In addition, each level tends to work within similar settings or situations, and this communality also contributes to the likelihood of higher correlations.

At best, then, we can hope to develop bodies of knowledge

at each level, but we should not expect much connection among these sets of findings. Some adjacent levels do, however, seem interconnected, such as the first two: characterizations of the individual and attributions of dimensions to each person.

Let me digress a moment to make a point about Level 2. Following the classic experiment of Bem and Allen (1974) on consistency as a variable on which people differ (for each trait), Kenrick and Stringfield (1980) have recently provided empirical evidence for a proposition that we all can readily accept, but that we have not recognized as a crucial limitation on trait attributing: For those traits on which a person judges him- or herself or is judged to be most consistent, relatively high agreement (.60 or more) is found among ratings by self, peer, and parent, but low agreement (about .23) for traits judged least consistent. This finding suggests that, over varying interpersonal situations, different people are consistent in different respects: The general attribution of some amount of a trait to a person is more appropriate for some traits than for others, depending upon the person. These considerations show very clearly a fundamental limitation to the attempt to assign degrees of a single supposedly nomothetic attribute to all persons. Perhaps we may eventually learn that, in the conventional domain of personality, the best we can do is find propositions that hold for some people in some conditions some of the time. That would be pretty good, provided we could establish to which people in what conditions each proposition applied. Alternatively, we might look for laws about the person's consistent behavior--regardless of their content.

Generalizability. Let us now consider a central criterion for all research: external validity. To what extent can the findings of research at each level be generalized to other samples of persons, other sets of items or stimuli, and to other settings? The relationships found in one lab or testing room on one day with one set of stimuli (items or whatever) are of almost no importance in themselves. We want to generalize to some larger domain. What domain? Some times, we loosely talk of generalizing to all behavior, but when pinned down, we realize that we really only want to generalize to behavior under some particular set of conditions. Most of the time, neither the researcher nor the reader of the research report specifies those conditions. A glance at the more developed sciences indicates that we should not hope to arrive at unequivocal universal laws but only at laws that hold within explicated boundary conditions.

A major flaw in most personality research is limited external validity, limited generalizability. Let's look at external validity for each level in turn. In Level 1 analyses, the findings are really the placing of individuals in categories. A basic weakness here is the undependability of such cat-

egorizing: different classifiers, especially when working from different information about the person, do not agree very well. It is therefore not surprising that attempts to predict later performance of individuals have had only limited success. And the further generalization of findings to other samples of persons holds up only fairly well.

Results from Level 2 analyses of trait attributions fare only slightly better. Although generalizing to other groups drawn from the same population of persons is fairly successful, scores based on one instrument do not generalize well to other instruments of the same kind, and generalize hardly at all to measurements using distinctly different methods.

Like Level 1, Level 3 (inferred processes) suffers primarily from inability to generalize across the judges, the people making inferences about the processes within persons. And like both Level 1 and Level 2, it has difficulty in achieving appreciable generalizability over results based on varying sets of stimuli and settings. So the external validity of ascribed dynamic processes in a single person is very weak.

Laboratory research on inferred processes has its own group of problems with external validity. One is the matter of mundane realism (Carlsmith, Ellsworth, & Aronson, 1976), the comparability of the lab setting with anything in the real world. Suppose the investigator arouses anxiety (whatever anxiety is) by threatening to administer electric shocks: To what could his results generalize? Have you ever, outside a psychological laboratory, been threatened with an electric shock? Perhaps in the 'sixties, one or two of you participated in a demonstration that police tried to break up by using cattle prods. Certainly such experiences are very rare. Yes, we have all undergone anticipation of being hurt by a dentist, nurse, or doctor, but do lab results with shocks generalize to experiences undergone for therapeutic gain? And how specific are anticipatory reactions to the various kinds of potentially painful stimuli?

Level 4, the level studying processes in construing behavior, seems likely to have some external validity. Although attributing at the instruction of an investigator is not the same as making attributions when preparing a recommendation for a student or when engaged in gossiping about people (the latter being natural attributing for quite different reasons), it does seem likely that people go about this process in much the same way under these diverse circumstances. After all, construing behavior, or attributing, is a kind of activity that we have practiced for years and years, and we may well do it in the laboratory in much the same way that we do it in everyday living.

External validity for results of research at Level 5 varies with the subtype. Since the work on effects of models uses

relatively brief exposures to the models, it does seem reasonable to expect that positive findings will generalize to instances in the real world where the exposure times are longer. Whether findings about bystanders in subways can be generalized above subways to ground-level conditions is uncertain, though the findings usually do seem to agree with our expectations based on personal observations. The generalizability of field experiments seems, a priori, to be good, the more so when the participants do not realize that they are subjects in research.

Research at Level 6, on specific acts, as in sequences in face-to-face interaction, seems very likely to have high external validity, especially if the behavior is observed very unobtrusively and if the findings hold for each participant studied. (In the program with which I am working with Duncan, however, we make no claims about generalizability, leaving it as a matter to be determined empirically.)

My friends who work in personality laboratories (e.g., Levels 3 and 4) may object that, if the lab has been so effective an approach in natural science, surely it will also be in behavioral science. Unfortunately, the two laboratory situations differ in one fundamental respect. In the natural sciences, one can produce an ideal set of conditions and obtain results indicating ideal forms of laws that hold more or less outside the lab. In behavioral science, the whole person is brought into the lab. Although some irrelevant sources of variations are controlled or even eliminated, it is impossible to eliminate the subject's reactions to the lab, to the experimenter, and to irrelevant aspects of stimuli. It is to be regretted that research on these reactions and research on the social psychology of the psychological experiment have been all too successful in obtaining positive results, in identifying irrelevant side effects.

Approximation to a basic science. Let us turn now to considering the extent to which research at each level approximates the criteria for a basic science. (Here is where my personal beliefs and value-system really show.) In a basic science, everything must be public and generally accessible: theories, concepts, findings, methods, and research procedures. For a science to advance, there must be some consensus on each of these components--agreement on some theoretical propositions, on the labels and definitions for some concepts, and on the adequacy of some methods and procedures. There must also be some findings that can be reproduced at will (common exemplars, in Kuhn's terms). And there must be intersubjective consensus on the empirical data--these are the foundation of everything else. Observers must be interchangeable, rather than contributing noise or variance to the data.

Here lies the reason why research at some of these levels is not producing a basic science and cannot hope to do so. As

we have already seen in considering the external validity of each level, there is only limited agreement between observers producing the data used at most of the levels. There is poor agreement on observations of phenomena at each of the first three levels. The fourth level, processes in construing behaviors and in making attributions, has some hope, especially insofar as the research is able to stay with process and avoid dealing with contents and meanings of attributions.

The hope for developing a science is strongest for Level 6 and fairly strong for Level 5. At Level 6, unlike the first three levels, we can agree on the phenomena that we are trying to study and understand, on the categories for classifying behaviors, and on the actual classifications of actions. At this level, everything can be public and consensus can readily be achieved. It also seems true that findings can be replicated, at least within specified conditions.

I have often been misunderstood concerning Levels 1 and 2. Although I see no hope for building a science there, I recognize a vital social need for us to work at those levels, doing what we can to make the quality of the social engineering as high as possible. No matter what psychologists choose to study, people in the real world will be characterized, labelled, and assigned to treatments or no treatment by those who must make decisions about them. We do have technical knowledge that can be brought to bear to make these decisions as sound as possible, for the well-being of the individuals concerned and of the institutions (such as universities) involved.

It will be apparent that the levels move steadily away from what has been considered the usual concerns of personality, that the levels move toward social psychology and human ethology. Those concerned with understanding the domain of personality as it has been viewed traditionally may well ask whether later levels, especially Level 6 with its attention to short actions, will ever throw any light on the traditional domain. I believe it will. I believe it will help us to understand the basically subjective experiences that constitute the field of personality by showing us something about the factors affecting those experiences. If we can gain some understanding of what is happening from moment to moment, we may learn how impressions are developed--impressions and other cognitive content about behavior and people that is personality, that constitute the phenomena we find so intriguing in both our lay and our professional lives.

So at some levels, we can have valuable engineering disciplines; at other levels, there will be systematic scholarly work in the humanistic tradition. A major thesis of this paper is that each of us must identify the phenomena he or she is trying to understand and the general method being used, and must determine what kind of analysis and understanding we

aspire to. I am sure that many will reject my criteria for science and will insist that what they are doing is scientific work. Those who want to assign a different definition to the term, science, have every right to do so. But all of us have the right to require that our colleagues define their terms, that they tell us what they mean by science, that they make explicit their criteria for scientific research. To make any progress in the domain of personality, it is absolutely essential that each investigator be quite clear about what he or she is trying to do and that each make explicit and make public their phenomena, their methods, and their goals.

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